

# BT3041 – Analysis and Interpretation of Biological Data

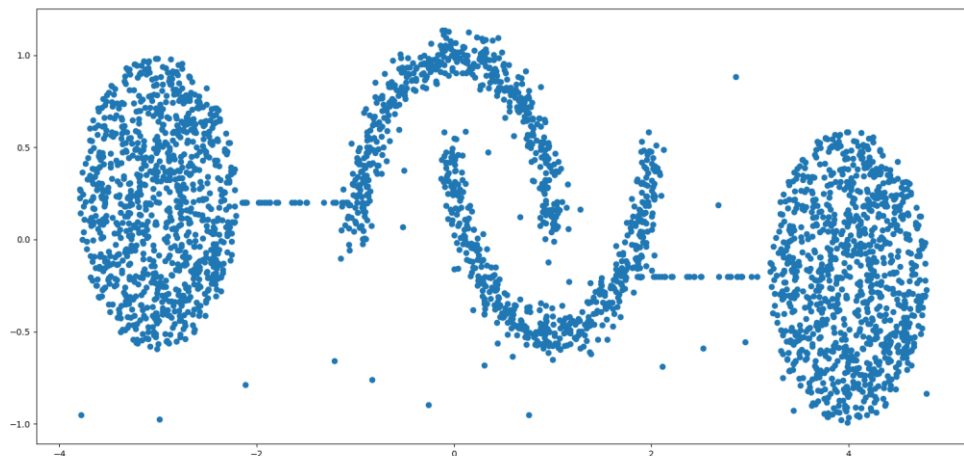
## Assignment 1

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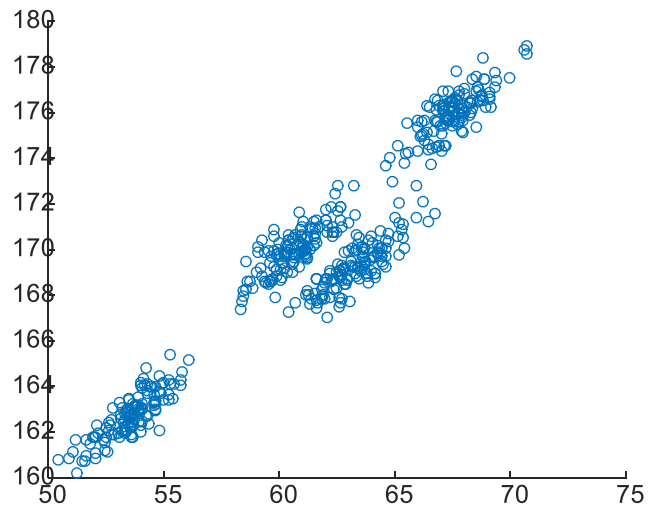
### General Instructions:

- ✓ The goal of this assignment is simulating and Understanding the DBSCAN clustering algorithm.
  - ✓ This is an individual assignment.
  - ✓ You may use MATLAB or Python for your implementation.
  - ✓ You have to turn in the well commented code along with a detailed report of the study.
  - ✓ Your report should contain answers for all of the questions/cases asked below.
  - ✓ Look at the end of the assignment for submission instructions.
  - ✓ **Submission deadline: Friday 26<sup>th</sup> March, 2021 (23:59).**
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1. Implement dbscan algorithm to cluster the given 2000 datapoints (dataset: dbscan2000). Report the right parameters to get four clusters and plot the clusters.



2. Implement dbscan algorithm to cluster the below given data points (dataset: Clustering\_gmm). Please select epsilon =0.5 and minimum points in a cluster as 10.



### Submission Instructions

Please enclose all your programs, plots and report in a single zip folder.

Please submit a compressed zip or tar file named as <ROLLNO>\_A1.zip by uploading it to the moodle.